AMENDMENTS

IN THE SPECIFICATION

Please amend the specification as follows:

[0003] One way of addressing such a danger is to replace the explosive fuel/oxygen mixture with a nonflammable inert gas, usually nitrogen. One method to accomplish this is the On-board Inert Gas Generating System (OBIGGS), which separates nitrogen from local, ambient air and replaces the fuel/air mixture in the ullage with this nitrogen. An example of such as OBIGGS is disclosed in co-pending U.S. Patent Application No. 10/308,971, now U.S. Patent No. 6,729,359 which is incorporated herein in its entirety.

[0035] The gas monitoring system also includes a controller 124. The controller 124 is preferably electrically coupled to the oxygen sensor 122. The controller 124 may also be electrically coupled to the pump 126, the isolation valves 120(1) and 120(2), the indicator ~~134~~ 132, and/or a fuel level gauge located within the space 110 (or the fuel quantity gauging systems currently on the aircraft). The controller 124 is configured to receive electrical signals, such as analog signals, from the oxygen sensor 122 and the fuel level gauge 134. The controller 124 is also configured to transmit signals, such as analog signals, to the isolation valves 120(1) and 120(2), the pump 126, and the indicator 132. In its simplest embodiment, the controller 124 may form part of the oxygen sensor 122. Further details of the controller and the use of the controller are described below in relation to Figures 3 and 4.